

less a tuning element. The at least one reflecting means of the present invention does not tune the laser, but rather, modifies the mode spectrum of the laser. Ota wants to tune the laser light to a desired wavelength. The claimed invention does not address tuning the laser light but rather addresses altering the mode spectrum to enhance the beam quality by using a specific mirror. Therefore, any modification of Ota to attain the desired result of the claimed invention does not make any sense. It would not have been obvious to have at least one reflecting means comprising a plurality of individual reflecting surfaces, each individual reflecting surface reflects one sub-beam being emitted from one individual exit surface in order to increase the condensing ratio. This important claimed feature is lacking in the Ota document and there is no reason to modify the tuning device of Ota to have same

Lang describes a mirror 32 with a plurality of segments; each of the segments reflects one of the partial beams 26 from a plurality of emitters 22. **But this mirror does not reflect the beams back into the resonator but reflects the already collimated beams 27 under an angle of 90° to compress the beam (See Fig. 1).** The dark areas 34 between the partial beams 27 are significantly reduced when the reflected beams 29 leave the mirror 32.

If the mirror of Lang is used to reflect the partial beams 29 back into the resonator, the partial beams would not only hit the emitters 22 but also hit the areas between the emitters 22. The efficiency of such an "external resonator" would be extremely poor. A skilled artisan would never build or contemplate such a poor inefficient design.

More importantly, if the diffraction grating of Ota is altered to have only one reflecting surface for one partial beam, the diffraction grating would no longer be a tuning element, as one needs interference from two different reflecting surfaces to

influence the wavelength of a light beam by a diffraction grating. So if the skilled artisan wants to *improve* the device of Ota, he would not give up the wavelength selective function of the grating. Therefore he would not reduce the number of reflecting surfaces to one per partial beam.

Neither Ota nor Lang reveal any mirrors which are suitable to affect the mode spectrum of the laser light by reflecting the light back into the resonator. Keep in mind: The mode spectrum is the intensity distribution in a plane perpendicular to the laser beam. In the pending application we talk about the mode spectrum of each individual partial beam. For instance you have one maximum (Gauss shape) or two or four maxima or the like.


Ota alters the wavelength of the laser light, while Lang influences the distances of the partial beams to each other. Lang cannot influence the mode spectrum of the beams as the device does not reflect light back into the resonator.

The undersigned encourages the Examiner to call with any questions.

It is the belief of applicant that the claims stand in condition for allowance.

If any fees are due or owing, please charge same to Deposit Account 08-2455.

Respectfully submitted,


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